RAW SEQUENCE LISTING PATENT APPLICATION US/07/800,364 3

#7

DATE: 02/23/95 TIME: 10:51:44

INPUT SET: S2404.raw

This Raw Listing contains the General Information Section and up to the first 5 pages.

| 1 | | | SEQUENCE | LISTING |
|--------|----------|-------------|--------------------------------|--------------------------|
| 2 3 | (1) G | eneral Info | cmation: | |
| 4 | | | | ורואו או |
| 5 | (i) | APPLICANT: | Hewick, Rodney M. | ICIKI II |
| 6 | | | Wang, Jack H. | ט טו בי |
| 7 | | | Wozney, John M. | |
| 8 | | | Celeste, Anthony J. | |
| 9 | | | | |
| 10 | (ii) | TITLE OF I | NVENTION: Bone and Cart | ilage Inductive Proteins |
| 11 | | | | |
| 12 | (iii) | NUMBER OF S | SEQUENCES: 15 | <i>≨.</i> |
| 13 | | | | |
| 14 | (iv) | CORRESPONDE | ENCE ADDRESS: | |
| 15 | | (A) ADDRES | SSEE: Legal Affairs, Ge | enetics Institute, Inc. |
| 16 | | (B) STREET | T: 87 CambridgePark Dri | lve |
| 17 | | (C) CITY: | Cambridge | |
| 18 | | (D) STATE: | : MA | |
| 19 | | (E) COUNTE | RY: USA | |
| 20 | | (F) ZIP: (|)2140 | • |
| 21 | | | | |
| 22 | (V) | | EADABLE FORM: | |
| 23 | | | 4 TYPE: Floppy disk | |
| 24 | | | TER: IBM PC compatible | |
| 25 | | · · | TING SYSTEM: PC-DOS/MS- | |
| 26 | | (D) SOFTWA | ARE: PatentIn Release # | 1.0, Version #1.25 |
| 27 | | | | |
| 28 | (Vi) | | PLICATION DATA: | |
| 29 | | • • | CATION NUMBER: US 07/80 | 00,364 |
| 30 | | | G DATE: 26-NOV-1991 | |
| 31 | | (C) CLASS | FICATION: | |
| 32 | | | | |
| 33 | (viii) | | SENT INFORMATION: | |
| 34 | | | Kapinos, Ellen J. | |
| 35 | | | TRATION NUMBER: 32,245 | |
| 36 | | (C) REFERE | ENCE/DOCKET NUMBER: GI | 5182A |
| 37 | | | | |
| 38 | (ix) | | CATION INFORMATION: | |
| 39 | | · · | HONE: 617-876-1170 | |
| 40 | | (B) TELEFA | AX: 617-876-5851 | |
| 41 | | | | |
| 42 | | | | |
| 43 | (2) INFO | RMATION FOR | SEQ ID NO:1: | |
| 44 | | | | |
| 45 | (i) | _ | HARACTERISTICS: | |
| 46 | | (A) LENGTH | H: 23 amino acids | |

RAW SEQUENCE LISTING PATENT APPLICATION US/07/800,364

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```
47
               (B) TYPE: amino acid
               (C) STRANDEDNESS: single
48
49
               (D) TOPOLOGY: unknown
50
51
         (ii) MOLECULE TYPE: peptide
52
53
        (iii) HYPOTHETICAL: NO
54
55
         (iv) ANTI-SENSE: NO
56
57
         (vi) ORIGINAL SOURCE:
58
               (F) TISSUE TYPE: Bone
59
60
61
         (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:
62
63
          Arg His Glu Leu Tyr Val Ser Phe Gln Asp Leu Gly Trp Leu Asp Trp
64
65
66
          Val Ile Ala Pro Gln Gly Tyr
67
68
69
     (2) INFORMATION FOR SEQ ID NO:2:
70
          (i) SEQUENCE CHARACTERISTICS:
71
               (A) LENGTH: 18 amino acids
72
73
               (B) TYPE: amino acid
74
               (C) STRANDEDNESS: single
75
               (D) TOPOLOGY: unknown
76
77
         (ii) MOLECULE TYPE: peptide
78
79
        (iii) HYPOTHETICAL: NO
80
81
         (iv) ANTI-SENSE: NO
82
          (v) FRAGMENT TYPE: internal
83
84
85
         (vi) ORIGINAL SOURCE:
86
               (A) ORGANISM: Bos taurus
87
               (F) TISSUE TYPE: Bone
88
89
90
         (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:
91
92
          Leu Ser Ala Thr Ser Val Leu Tyr Tyr Asp Ser Ser Asn Asn Val Ile
93
                                                10
94
95
          Leu Arg
96
97
98
     (2) INFORMATION FOR SEQ ID NO:3:
99
```

RAW SEQUENCE LISTING PATENT APPLICATION US/07/800,364

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INPUT SET: S2404.raw

```
100
           (i) SEQUENCE CHARACTERISTICS:
                (A) LENGTH: 7 amino acids
101
102
                (B) TYPE: amino acid
103
                (C) STRANDEDNESS: single
104
                (D) TOPOLOGY: unknown
105
106
          (ii) MOLECULE TYPE: peptide
107
         (iii) HYPOTHETICAL: NO
108
109
110
         (iv) ANTI-SENSE: NO
111
112
          (vi) ORIGINAL SOURCE:
113
                (A) ORGANISM: Bos taurus
114
                (F) TISSUE TYPE: Bone
115
116
          (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:
117
118
           Ala Cys Cys Ala Pro Thr Lys
119
120
121
122
     (2) INFORMATION FOR SEQ ID NO:4:
123
124
           (i) SEQUENCE CHARACTERISTICS:
                (A) LENGTH: 23 amino acids
125
126
                (B) TYPE: amino acid
                (C) STRANDEDNESS: single
127
128
                (D) TOPOLOGY: unknown
129
130
         (ii) MOLECULE TYPE: peptide
131
132
         (iii) HYPOTHETICAL: NO
13.3
          (vi) ORIGINAL SOURCE:
134
135
                (A) ORGANISM: Bos taurus
136
                (F) TISSUE TYPE: Bone
137
138
139
          (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:
140
141
           Thr Asn Glu Leu Pro Pro Pro Asn Lys Leu Pro Gly Ile Phe Asp Asp
142
143
144
           Val His Gly Ser His Gly Arg
145
                       20
146
147
      (2) INFORMATION FOR SEQ ID NO:5:
148
149
           (i) SEQUENCE CHARACTERISTICS:
                (A) LENGTH: 80 base pairs
150
151
                (B) TYPE: nucleic acid
152
                (C) STRANDEDNESS: double
```

RAW SEQUENCE LISTING PATENT APPLICATION US/07/800,364

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INPUT SET: S2404.raw (D) TOPOLOGY: linear (ii) MOLECULE TYPE: DNA (genomic) (iii) HYPOTHETICAL: NO (iv) ANTI-SENSE: NO (vi) ORIGINAL SOURCE: (A) ORGANISM: Bos taurus (vii) IMMEDIATE SOURCE: (B) CLONE: acc30 (viii) POSITION IN GENOME: (C) UNITS: bp (ix) FEATURE: (A) NAME/KEY: CDS (B) LOCATION: 25..57 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:5: GGATCCGCGT GCTGTGCTCC GACC AAG CTG AGC GCC ACC TCC GTG CTC TAC Lys Leu Ser Ala Thr Ser Val Leu Tyr TAC GAC AGCAGCAACA ATGTAATTCT AGA Tyr Asp (2) INFORMATION FOR SEQ ID NO:6: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 11 amino acids (B) TYPE: amino acid (D) TOPOLOGY: linear (ii) MOLECULE TYPE: protein (xi) SEQUENCE DESCRIPTION: SEQ ID NO:6: Lys Leu Ser Ala Thr Ser Val Leu Tyr Tyr Asp (2) INFORMATION FOR SEQ ID NO:7: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 199 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: double

RAW SEQUENCE LISTING PATENT APPLICATION US/07/800,364

DATE: 02/23/95 TIME: 10:52:01

INPUT SET: S2404.raw

| 206 | | | (1 | D) T(| OPOL | OGY: | lin | ear | | | | | | | | | |
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| 207 | | | | | | | | | | | | | | | | | |
| 208 209 | | (11) | MO: | LECU | LE T | YPE: | DNA | (ge | nomi | C) | | | | | | | |
| 210 | | (iii) | НУ | нточ | er i C | AT. : 1 | NO. | | | | | | | | | | |
| 211 | | (, | | . • | | | | | | | | | | | | | |
| 212 | | /vi) | OB. | TOTN | AT. 90 | OURCI | ₹• | | | | | | | | | | |
| 213 | | (• =) | | | | ISM: | | + 211 | ruc | | | | | | | | |
| 214 | | | () | A) O | KGAN. | LOM. | воз | cau | Lus | | | | | | | | |
| 215 | | (vii) | T 1/1 | APDT | | 20110 | 7 to . | | | | | | | | | | |
| 216 | | (^ 1 1) | | | | RY: 1 | | | | | | | | | | | |
| 217 | | | • | • | | | | _ | | IC | | | | | | | |
| | | | (, | 5) C | JONE | : Lar | nbua | 900 | 0-10 | | | | | | | | |
| 218 | | | | 3 T M T | T | | 1014 | _ | | | | | | | | | |
| 219 | (| viii) | | | | | MOME | : | | | | | | | | | |
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| 221 | | | | | _ | | | | | | | | | | | | |
| 222 | | (1X) | | ATURI | | | | | | | | | | | | | |
| 223 | | | | | | KEY: | | | | | | | | | | | |
| 224 | | | (1 | B) L(| CAT: | ION: | 30. | .199 | | | | | | | | | |
| 225 | | | | | | | | | | | | | | | | | |
| 226 | | (ix) | | ATURI | | | | | | | | | | | | | |
| 227 | | | • | • | | KEY: | | | | | | | | | | | |
| 228 | | | (1 | B) L(| CAT. | ion: | 1 | 29 | | | | | | | | | |
| 229 | | | | | _ | | | | | | | | | | | | |
| 230 | | (ix) | | ATURI | | | | | | | | | | | | | |
| 231 | | | • | • | | KEY: | | | | | | | | | | | |
| 232 | | | (1 | B) L(| CAT. | ION: | 30. | .179 | | | | | | | | | |
| 233 | | | | | | | | | | | | | | | | | |
| 234 | | | ~- | | | | | | | | | | | | | | |
| 235 | | (X1) | SE | SOEM | CE DI | ESCR | LPTI | ON: | SEQ . | ID NO | 3:7: | | | | | | |
| 236 | maaa | 3000 | 100 / | 7000 | 1000 | 70 0 | 3000 | 222 | ama | a.a | ama | ama | | 000 | ~~~ | 999 | F 3 |
| 237 | TGC | CCGCI | IGC (| JUCC' | rece | 30 00 | CCGG | CCAG | | | | | | | | | 53 |
| 238 | | | | | | | | | | HIS | Leu | Leu | _ | Pro | HIS | Ата | |
| 239 | | | | | | | | | 1 | | | | 5 | | | | |
| 240 | ama | aaa | | ~~~ | maa | maa | ~~~ | ~~~ | | | ~m~ | | ~~~ | . am | maa | ama | 101 |
| 241 | | CCC | | | | | | | | | | | | | | | 101 |
| 242 | vaı | Pro | гàг | Ата | cys | cys | | Pro | Thr | Lys | Leu | | Ата | Thr | ser | vaı | |
| 243 | | 10 | | | | | 15 | | | | | 20 | | | | | |
| 244 | | | | | | | | | | | | | | | | | |
| 245 | | TAC | | | | | | | | | | | | | | | 149 |
| 246 | | Tyr | _ | _ | | | | | | | | _ | _ | | _ | | |
| 247 | 25 | | | | | 30 | | | | | 35 | | | | | 40 | |
| 248 | | | | | | | | | | | | | | | | | |
| 249 | | GTG | | | | | | | | TGA | 3GCC(| CCA A | ACTC | CACC | 3G | | 196 |
| 250 | Met | Val | Val | Arg | | Cys | GTÀ | Cys | His | | | | | | | | |
| 251 | | | | | 45 | | | | | 50 | | | | | | | |
| 252 | | | | | | | | | | | | | | | | | |
| 253 | CAG | | | | | | | | | | | | | | | | 199 |
| 254 | | | | | | | | | | | | | | | | | |
| 255 | | | | | | | | | | | | | | | | | |
| 256 | (2) | INFO | RMA' | I'ION | FOR | SEQ | ID I | 8:ON | : | | | | | | | | |
| 257 | | | | | | | | | | | | | | | | | |
| 258 | | (| i) \$ | SEQUI | INCE | CHAI | RACTI | ERIS' | rics | : | | | | | | | |

SEQUENCE VERIFICATION REPORT PATENT APPLICATION US/07/800,364

DATE: 02/23/95 TIME: 10:52:05

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Original Text